

WHAT IS CLAIMED IS:

1. A voice interactive system, comprising:
 - an acoustic processing part for performing acoustic signal processing
 - 5 with respect to an input voice signal;
 - a voice recognizing part for recognizing contents of a voice contained in the voice signal after being subjected to the acoustic signal processing;
 - a voice interacting part for transmitting information to a user through a voice output or a combination of the voice output and another
 - 10 information transmission unit based on the contents of the voice; and
 - a barge-in control part having a barge-in function of suspending transmission of information by an input or an output of the acoustic processing part, or an input signal from an external input in the course of the transmission of information,
 - 15 wherein the barge-in control part detects one or more feature values from the input or the output of the acoustic processing part, or the input signal from the external input, and determines whether or not the barge-in function is set to be effective based on the one or more feature values.
- 20 2. The voice interactive system according to claim 1, wherein at least one of the one or more feature values is a noise feature value, and the barge-in function is set to be non-effective in a case where the noise feature value exceeds a predetermined threshold value.
- 25 3. The voice interactive system according to claim 1, wherein at least one of the one or more feature values is a S/N of a user voice, and the barge-in function is set to be effective in a case where the S/N exceeds a predetermined threshold value.
- 30 4. The voice interactive system according to claim 1, wherein at least one of the one or more feature values is positional information of the user detected from the input signal from the external input, an environment evaluation

value of a position of the user is calculated based on the positional information and environmental information, and the barge-in function is set to be non-effective in the case where the environment evaluation value exceeds a predetermined value.

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5. The voice interactive system according to claim 1, wherein the voice interacting part notifies the user of an effective/non-effective state of the barge-in function using at least one of a voice and another information transmission unit.

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6. The voice interactive system according to claim 2, wherein the voice interacting part notifies the user of an effective/non-effective state of the barge-in function using at least one of a voice and another information transmission unit.

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7. The voice interactive system according to claim 3, wherein the voice interacting part notifies the user of an effective/non-effective state of the barge-in function using at least one of a voice and another information transmission unit.

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8. The voice interactive system according to claim 4, wherein the voice interacting part notifies the user of an effective/non-effective state of the barge-in function using at least one of a voice and another information transmission unit.

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9. A voice interactive method comprising:

 a first operation of performing acoustic signal processing with respect to an input voice signal;

30 a second operation of recognizing contents of a voice contained in the voice signal after being subjected to the acoustic signal processing;

 a third operation of transmitting information to a user through a voice output or a combination of the voice output and another information

transmission unit based on the contents of the voice; and

a fourth operation having a barge-in function of suspending transmission of information by an input or an output in the first operation or an input signal from an external input in the course of the transmission of information,

wherein in the fourth operation, one or more feature values are detected from the input or the output in the first operation or the input signal from the external input, and whether or not the barge-in function is set to be effective is determined based on the one or more feature values.

10. A computer program product in which a computer-executable program for realizing a voice interactive method is recorded on a medium, the program comprising:

a first operation of performing acoustic signal processing with respect to an input voice signal;

a second operation of recognizing contents of a voice contained in the voice signal after being subjected to the acoustic signal processing;

a third operation of transmitting information to a user through a voice output or a combination of the voice output and another information

transmission unit based on the contents of the voice; and

a fourth operation having a barge-in function of suspending transmission of information by an input or an output in the first operation or an input signal from an external input in the course of the transmission of information,

wherein in the fourth operation, the program detects one or more feature values from the input or the output in the first operation or the input signal from the external input, and determines whether or not the barge-in function is set to be effective based on the one or more feature values.